Correspondence.

DOVER HARBOUR—UPRIGHT WALLS IN THE SEA.

SIR,—Looking through THE BUILDER for the 18th ult., I was struck with the declaration of Sir Howard Douglas against the practicability of building a perpendicular mole in the sea. The ancients managed these things well enough "to my personal knowledge," as witness the mural mole at Civita Vecchia, the "wall" at Santa Maura, Caligula's-bridge, at Pausilipo, and numerous others.

I am, Sir, &c.. W. H. S.

BRICKS FOR ROAD PAVEMENT.

SIR,—Ingenuity is nearly exhausted in devising improvements in paving. Almost every thing, even India-rubber, has been put in requisition. Bricks remain, however, to be tried, *i.e.*, for public roads; and since various kinds, according to the different purposes, are already produced, they could surely be made fit for this purpose. They might be laid on end, and need not be more than 6 inches long. As they would all be exactly alike, there would be no fitting or choosing, as is the case with the best cut stones, by which much time would be saved, and the pavers enabled to proceed with wonderful rapidity. Where the road is sufficiently wide, they could do one-half first, while carriages passed on the other, by which the very injurious interruptions to business in our principal streets would be obviated. Probably the Commissioners of Excise would grant permission, without waiting for a special Act of Parliament, to make bricks of any size and form, when confined *exclusively* to paving.

PROJECTOR.

TO DETERMINE LINES OF ROOF.

SIR,—Will one of your readers be kind enough to inform me how to get by lines the saddle of a ridge stone for the hip of a roof, supposing the pitch of the roof to be one-fourth of the span.—I am, Sir, &c.,

A CARPENTER.

Miscellanea.

CHART OF ANCIENT ARMOUR.*—The author of this pictorial chart expresses a hope that it will be found useful and acceptable "to those wandering among the ancient sepulchral monuments of our cathedrals, or treading the brasses of our country churches; to the student poring over the pages of chivalry or deciphering the illuminations of middle-age lore; to the traveller exploring the armour-galleries of his own or of foreign countries; to the painter, the sculptor, the historian, and the costumist;"—and we beg leave to say, we think it will. It consists of a folded sheet, whereon are nicely depicted eighteen figures, shewing the variations in armour between the 11th and 17th centuries. It will not give profound knowledge, but those who master it fully, will be able to approximate the date of most of the armour and effigies which may be brought before them. In the little key which accompanies the chart, Mr. Hewitt gives the following memorandum:—

"It will be of use to note that, for *general purposes*, the body armour during four centuries may be thus simply classified:—

12th century.... Scale, ring, and mail, *unmixed* with plate.
13th century.... Mixed mail and plate; the mail predominating.
14th century.... Mixed mail and plate; the plate prevailing.
15th century.... Era of complete plate.

For the 16th century, or Tudor period, the breastplate will be found a good guide. Its form was at first globose: then a point appeared in front, near the centre: this point or peak gradually fell towards the waist, till at last it extended even beyond the band of the breastplate, and assumed both the form and the name of a 'peascod.' Under the Stuarts, the peaked waists by degrees disappeared, till at length the breastplate became nearly square at its termination, with an obtuse ridge down the centre."

* "Chart of Ancient Armour from the 11th to the 16th Century." By J. Hewitt. Bell, Fleet-street.

THE IRISH ART-UNION AND THE LORD LIEUTENANT.—Addresses to Lord Clarendon have of course been numerous. The Royal Irish Art-Union, amongst other bodies, presented one on the occasion of his Excellency's visit to an exhibition of sculpture by native artists, soliciting him to become a patron of that body. The Viceroy at once assented, and said in his reply:—"When I look around at all these beautiful and speaking proofs of native talent, and deduce from them that in other branches of art the same talent, with the same result, has been displayed, I feel well assured that in Ireland there must exist a vast amount of artistical genius which only requires and will amply repay a generous encouragement. Let it be withheld, however, or afforded with a niggard hand, and it is hopeless to look for success in art; and if we recollect that without a Julius II. and a Leo X. the transcendant genius of Michael Angelo and Raffaelle might not have been developed, and their immortal works might not have been executed, we must feel how much those will stand in need of encouragement who, without a hope of reaching their unrivalled eminence, have still at first to struggle against difficulties not inferior to theirs. It has been often said, and I fear with truth, that in Ireland neither fame nor reward attend Irish genius; but I rejoice to think that it has not hitherto on that account languished; for the admiration with which the British public have long been accustomed to view the works of Shee, Mulready, Danby, Maclise, Rothwell, Macdowell, Hogan, Kirk, Moore, Foley, Jones, and other illustrious artists I could name, proves that in England sterling merit is appreciated as it deserves to be, and that among my countrymen, as respects art, and I trust in all other things, justice to Ireland will not be looked for in vain."

THE "NAVVY," NOT THE NAVY, THE DEFENCE OF THE COUNTRY.—Mr. Weale, the architectural publisher, has addressed a letter to Lord John Russell, pointing out what he considers the dangerous position of the "snug little island" in the event of invasion, and urging that our railway labourers, and all able-bodied male persons applying for parochial relief, be drilled and trained to arms. For our own part, we cannot bring ourselves to believe in invasions of England, and should deeply regret to see the mind of the country so unsettled and disturbed as it would be by such a proceeding as that proposed.

NEW SYNAGOGUE AT CANTERBURY.—The first stone of a new Jewish temple or synagogue was laid on the 13th ult. (13th Tishri, A.M. 5608) in King-street, Canterbury, on the very site of the ancient house of the redoubted "Knights Templar;" once the inveterate scourge of the persecuted Jews, but now themselves removed from the face of the earth, together with their house, which has thus given place in the lapse of ages to so singular an inheritance. The site of their former place of worship was required for a railway station, &c. The stone was laid by Sir Moses Montefiore in the presence of the mayor, aldermen, &c., of the city. No particulars either as to style of architecture, architect, or builder, are given by our authority, the *Morning Advertiser*.

SECOND-HAND STEAM 'USED UP.'—At the sitting of the Paris Academy of Sciences on 20th ultimo, M. Séguin read a paper on the effect of caloric in steam as connected with motion, the result of which seems to be that it would be possible to make the same steam which has already imparted motion, repeat the operation by giving to it a new supply of caloric without the necessity of the production of new vapour. This, as the *Morning Post* observes, would be a very important improvement in steam-engines, and M. Séguin promises to follow up his experiments with a view to arrive at the practical application of his theory.

TINKERING THE ANGELS.—It is a novelty to find the old custom of mending the parish angelicals brought down to our own times, in Salopian localities; but so it is. For example:—

The Churchwardens of L———
To Benjn. Evans,
1847. for repairing the church.
Feby. 7.—Making a new wing to a angel .. 3s. 6d.
Making a new angel: you fund the stuf ..... 8s. 6d.
Repairing the leg of a cherrybum 2s. 6d.
14s. 6d.

—*Eddowes' Shrewsbury Journal.*

PROJECTED WORKS, &c.—Tenders have been called for by advertisement for the erection of a town-hall and other buildings at Yeovil; and a national school and master's residence at Maryport (extension of time); for the execution of the works or a portion of the works of the Manchester and Southport Railway; the erection of ten gate-keepers' lodges on the East and West Yorkshire Junction Line; the extension of sewers in Tower Hamlets; the covering of 623 feet of King's Scholar's pond sewer, and 250 of Ranelagh sewer; the inclosing of airing grounds at Fever Hospital of Bedford Infirmary; renewing and repairing the pavements at Gosport; sinking and boring for water near Maidstone; lighting theatre of Polytechnic Institution with gas by chandeliers, or otherwise, together with designs for same; also for a supply of pig iron, paint and tar for East-India Company.

TRAPPING SEWERS — IMPURE ATMOSPHERE.—Last week, Mr. T. A. Smith delivered a lecture on the corruptions and impurities of the atmosphere caused by carbonic acid and other gases from fires, candles, gas-lights, gas-works, and manufactories. Of all the contaminators of the atmosphere, sulphuretted hydrogen was the most detrimental and poisonous. In escaping from decomposing animal and vegetable substances in dwellings, dust-bins, dung-heaps, slaughter-houses, burying-grounds, and cesspools, it had the most injurious tendency, and no one could scarcely pass the gully-holes of their sewers without being affected by it. Besides being a deadly poison, it had a deteriorating effect upon paintings and furniture, and there was not a house in London but what some portion of the furniture in it was less or more affected by this poisonous effluvium. Mr. Smith went through several experiments, which proved the statements he made regarding it. Some had proposed to get rid of the poisonous matter by decomposing it by means of lead or chlorine, either of which would do so, but instead of getting rid of it by chemical means, the better way would be by some mechanical process, and in doing so to adopt the generally acknowledged fact—that to prevent an evil was better than to cure it. It was thought that the introduction of large shafts into the sewers, so as to carry the offensive matter far up into the air, that it might be there decomposed by the influences brought to bear upon it, was the best mode of getting rid of it; and no doubt the plan was a good one, but the formation of their sewers in an oval, instead of the shape which many of them at present were, so that no matter could remain in them, and the cleansing them out every day by a copious supply of water, was the best mode that could be adopted.

CONSTRUCTION OF WET DOCK AT ABERDEEN.—The works are being vigorously prosecuted. The formation of the lock has offered many difficulties on account of the nature of the bottom. It was built within a coffer-dam 390 feet long, and having six feet of clay puddle; the interior of the dam was braced to resist the pressure by parallel braces of great magnitude, on which cranes traversed in every required direction for setting the masonry. The masonry of the dock is almost entirely composed of fine dressed granite, resting on a platform of timber, supported by 4,000 piles of American red pine, from fifteen to twenty feet long. The gates are of mahogany, covering a framework of cast-iron, each leaf weighing upwards of fifty tons. By the arrangement of the machinery these are easily worked by five men. The quay walls are all of dressed granite, the near walls constructed for a depth of twenty-one feet water at deep tides. The estimated cost of the harbour works is one hundred and twenty thousand pounds.

KNELLER HALL, MIDDLESEX.—A correspondent writes as follows:—"Kneller Hall, formerly the residence of Sir Godfrey Kneller, Bart., and built by him, has been purchased, we understand, by Government. The staircase, which goes to the height of two stories, is very interesting, as it is supposed to have been painted by himself. The subjects on three sides, as well as the ceiling, are allegorical, that on the west side next the hall representing painting, sculpture, and architecture, evidently contains portraits, perhaps of Sir Godfrey and his family. The paintings being only on lath and plaster partitions, have suffered considerably, but it is to be hoped they will now be carefully restored, and preserved in their original position.

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